Boreal Partners in Flight
2008 Annual Meeting
Proceedings and Project Descriptions

December 10 &11, 2008
Anchorage, Alaska

TABLE OF CONTENTS

A NOTE FROM THE COMPILER

In continuing with tradition, I also won't waste everyone's time with a long monolog. I received eleven project summaries and one BCR report this year and have included them in this document. Thanks to all of you who took the time to contribute. I have attempted to cut and paste where I could find information on the various projects presented at the 2008 BPIF. I have also included my own notes from the meeting, but apologize immediately as I often get caught up in the presentation and neglect to put pen to paper to document thoughts. Needless to say the notes are sparse. I hope this document will be helpful in some respect. Thanks to all BPIF for your hard work and continued contributions to the conservation and understanding of Alaskan birds and their habitat. *Amal R Ajmi*

BCR REPORTS

2008 BCR 2

Reports submitted by:

- Travis Booms, Kevin McCracken, and Falk Huettmann (UAF), Brian McCaffery (Yukon-Delta NWR), Phil Schempf, USFWS; Sandy Talbot (USGS), Mark Fuller, *USGS Forest and Rangeland Ecosystem Science Center*
- Dan Ruthrauff (USGS) and Bill Thompson, NPS-SWAN (SW Alaska network parks)
- Susan Savage, Alaska Peninsula/Becharof (AKPB) NWR (BCR coordinator)
- Bruce Seppi (BLM)
- Kristine Sowl, Izembek NWR
- Michael Swaim, Togiak NWR

Projects completed:

- Three Breeding Bird Survey Routes were completed: King Salmon (AKPB staff) Dillingham (Togiak staff), Izembek (Cold Bay, Izembek staff)
- Three Christmas Bird Counts were completed: King Salmon (sponsored by AKPB NWR), Dillingham (sponsored by Togiak staff), Cold Bay (sponsored by Izembek staff)
- Three North American Migration Counts (May 2008): Cold Bay, Dillingham and King Salmon (sponsored by Izembek, Togiak and AKPB staff, respectively)
- Off road point counts: Izembek (50 off-road points in the isthmus between Kinzarof and Izembek Lagoons, completed in 2007 and 2008). Lapland longspurs and rock sandpipers were the two most common species on the 2007 surveys.
- 2008 Landbird Inventory & Monitoring, Alaska Peninsula/Becharof NWR (see project summaries, Savage)
- Gyrfalcon Breeding Ecology Project (see project summaries, Booms et al.)
- Bald Eagle Monitoring: Togiak NWR (note: in 2009 plan to follow Patuxent's dual-frame protocol), Nests – Road System, Cold Bay (Izembek NWR)
- Inventory Of Breeding Birds In Aniakchak National Monument And Preserve (see project summaries, Ruthrauff and Thompson)
- Bale Eagle Feather Collection: Cooperate with population genetics study by Boise State University (Izembek NWR)
- Raptor First Aid and Transport / collection of carcasses (Alaska Peninsula/Becharof NWR, Izembek NWR, Togiak NWR)

Outreach:

- Great Backyard Bird Count:
    - AKPB staff presented information at Bristol Bay Borough School encouraging the 7th grade class to participate.
    - Izembek participated
- Togiak Refuge staff visited schools in 14 villages to encourage participation in the Alaska Migratory Bird Calendar Contest. Alaska Peninsula/Becharof staff visited two schools in Bristol Bay Borough for the same purpose.

- Twenty-one bird-related episodes of Bristol Bay Field Notes were completed and broadcast on the local radio station, KDLG (Togiak NWR).
- Staff at Togiak Refuge presented information on migratory birds at Dillingham Elementary and led an outdoor bird walk.

Issues:
Please refer to 2005 BCR Report
New issues: The Bay Resource Management Plan -EIS completed by BLM Anchorage Field Office- lands that were previously withdrawn from mineral entry are now open to mining on BLM managed lands - notably on inland areas in the Goodnews Bay/Carter Spit Area. Platinum mine in the Goodnews Bay/Salmon River area will submit a plan of operation for a proposal to re-mine tailings and for the sale of tailings for gravel- permitted by BLM. A reclamation plan is also being proposed, although the mine remains active under new ownership.

PROJECT REPORTS

2008 Update: Fort Wainwright Tanana Flats Training Area (TFTA) and Yukon Training Area (YTA), Alaska

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MONITORING/INVENTORY

Breeding Bird Survey (BBS)

FWA has participated in the BBS program since 1982. The little Salcha Route was mapped with a GPS in 2007 and the data points were added to the most current GIS vegetation layer. Training and logging activities in the YTA may alter habitat in the coming years. Changes in bird species composition will be documented as changes occur.

ALMS/Off-Road Point Counts

FWA has participated in ALMS since 2006. Two ALMS plots have been successfully established in the YTA. A total of 20 species, (248 individuals), was detected during the 2008 ALMS. Dark-eyed Juncos (69), Orange-crowned Warblers (28), and Yellow-rumped Warblers (23) were the most numerous species detected.

In 1998, the Alaska Bird Observatory studied the distribution of landbirds among habitats on the TFTA and YTA at Fort Wainwright. With increasing demands on these training areas, we decided to resample the point counts and vegetation for changes in habitat and species composition. The 2008 project being limited by field crews, we decided to selectively resample the points over a four year period. We re-surveyed 105 points in the YTA. A total of 29 species, (893 individuals), was detected between May 27th and June 20th. Dark-eyed Juncos (252),

Yellow-rumped Warblers (146), and White-winged Crossbills (123) were the most numerous species detected.

Cavity nesting Ducks

In 2000, a duck box project was initiated on Fort Wainwright, Alaska. The purpose of the project was to encourage cavity nesting waterfowl to take residence on lake and river systems, and provide educational and aesthetic value to boaters and outdoor enthusiasts on military lands. The waterfowl species targeted by this project, are the Bufflehead, *Bucephala albeola*, Barrow's Goldeneye, *Bucephala islandica*, and Common Goldeneye, *Bucephala clangula*. The FWA program began with eleven boxes placed as follows: 4 boxes were placed along the Chena River flowing through the Fort Wainwright Main Post, 4 boxes were placed at Horseshoe Lake, and 3 boxes were placed at Manchu Lake, both located in the Yukon Training Area (YTA). As of September 2008, there are a total of 16 boxes currently placed on FWA. This project has provided nesting habitat for waterfowl, as well as other avian species and even small mammals. American Kestrels, *Falco spaverius*, and Boreal Owls, *Aegolius funereus*, have been found occupying the boxes as well as Red Squirrels, *Tamiasciurus hudsonicus*. Five boxes were utilized by waterfowl in 2008 as evidenced by eggs, eggshell fragments and down.

Prior to the 2007 season, the purpose of the project was to determine usage. Nesting success was secondary information and not considered quantifiable. In 2007, three visits were made to the nest boxes to determine usage and success. Overall, very few nesting ducks were observed, however the timing of the visits may have been too late in the summer, and broods may have already left the boxes. In 2008, a bufflehead was observed using a Manchu Lake box and a box check later in the summer revealed evidence of a nest; however, the bufflehead and her brood were never seen during observations. A late summer box check revealed the a Horseshoe Lake box had been utilized by goldeneyes as evidenced by egg shell fragments, casings and down; again the adult and her brood were never seen during observations. The lack of detection of broods during observation periods does not denote absence, or low productivity. Broods may move between water bodies soon after leaving boxes in search for habitat more suitable for brood rearing (Pöysä and Paasivaara, 2006). Also, broods are very adept at using tall vegetation as protection against aerial predators, and can very easily escape detection. In 2009, nest box monitoring periods, and number of visits will be increased, and observations will start earlier in the spring. We hope to detect active nesting and count number of broods before dispersal. Additional information we hope to obtain are breeding strategies including Intra- and Inter-specific parasitism.

Ruffed Grouse Drumming Surveys

Ruffed grouse surveys were initiated along Quarry Road Yukon Training Area (YTA) in 2003. Methods are consistent with state and national survey techniques. Survey routes consist of ten stops spaced roughly a mile apart along a roadway in habitat favoring Ruffed Grouse. At each stop, the observer listens for a period of four minutes, and records drumming and direction to the grouse. Any sighting should also be documented and recorded. It is best to conduct counts during peak drumming periods, usually in the early morning and late evening, roughly ½ hour before

sunrise and 2 hours before sunset. Date, time, temperature, wind, and rain should all be documented. Surveys should be conducted during periods of calm or light winds (< 20 km/h) and precipitation minimal. The route was run four times between May 2nd and May 4th. Data was compiled and incorporated into the Ruffed Grouse population status in Interior Alaska as part of the Upland Game report submitted annually by W. Taylor.

Raptors

Osprey nesting on Fort Wainwright has been documented since 2005. Annually, a pair of Osprey will build a stick nest on the tallest power pole above the Chena River just off the departure / arrival path of Ladd Army Airfield. Limited observations began in 2006; time spent observing increased in 2007. In 2008, a total of 163 hours, (89 visits), were spent observing the breeding ospreys between May14th and September 23rd. Two chicks were successfully fledged in 2008. Behavioral information including time spent incubating, brooding, and perching were taken for both male and female osprey as well post fledging behavior of the family unit prior to permanently leaving the natal area in late September. We intend to compile the information to calculate time activity budgets. We also hope to expand this monitoring to a live feed system for educational purposes in the community and to discover and document nesting activities not seen from the ground.

2008 American Peregrine Falcon (Falco peregrinus anatum) Monitoring along the Upper Yukon River in Yukon-Charley Rivers National Preserve, Central Alaska Network

Skip Ambrose[1], Chris Florian[1], John Burch[2], Melanie Flamme[2]
Sandhill Company[1], National Park Service[2]

2008 marked the 33rd consecutive year of American peregrine falcon monitoring along the Upper Yukon River corridor. American peregrine falcons were selected by the National Park Service Central Alaska Network (CAKN) Inventory and Monitoring Program as one of the vital signs to be monitored within Yukon-Charley Rivers National Preserve (YUCH) to determine ecosystem health (MacCluskie and Oakley 2005). This area is 1 of 2 index study areas for Alaska (*National Monitoring Plan for the American Peregrine Falcon*, U.S. Fish and Wildlife Service, 2003). The population within the Upper Yukon River corridor is believed to be one of the densest populations in North America, and also has one of the longest and most complete recorded datasets for the species. The survey is conducted by boat between Circle, Alaska and the border of Yukon Territory along 265 km of the Yukon River. Survey methods followed Standard Operating Procedure (SOP) #5, Version 1.0, *American Peregrine Falcon Monitoring Protocol for the Central Alaska Network Units of the National Park System*, National Park Service, 2004). This SOP is designed to provide annual information from a contiguous study area containing both known territories and potential habitat along the Upper Yukon River. From 22 May to 1 June 2008, all known territories along the study area were surveyed to identify occupied territories. Nest success and productivity were determined during the second survey period, conducted from 28 June to 7 July, 2008.

The number of occupied territories within the study area has shown a steady increase since the species neared extinction in the early 1970's because of nest failure caused by DDT contamination. Though population numbers have increased, recent evidence suggests that American peregrine falcons are still threatened by environmental contaminants. Analyses of American peregrine falcon eggs from the upper Yukon River suggest that mercury, a persistent compound which bioaccumulates at high trophic levels causing toxic effects (similar to DDT), is currently at levels that may affect reproduction, and trends suggest that mercury levels may be increasing (Ambrose et al. 2000). High levels of mercury are made biologically available through industrial processes such as mining and waste incineration, and will likely increase with global industrialization. Additionally, DDT and other pesticides are still being used on wintering grounds, which may cause continued risk to the population.

In 2008, fifty-two nesting territories were occupied by American peregrine falcon (50 pairs and 2 single adults on territories). Thirty-five of 52 pairs (70.0%) were successful, and produced 79 nestlings. Productivity was 1.58 nestlings per total pair and 2.26 nestlings per successful (≥ 1 nestling observed) pair. Between 1975 and 2008, the number of total and successful pairs nesting along the upper Yukon River has been steadily increasing, though the percentage of total pairs nesting successfully has been declining. This may be attributable to increased competition for resources due to increased density and birds moving into sub-optimal territories (i.e. territories with insufficient resources and cover from predators). In 2008, four new territories were established on cliffs not previously used by peregrines in over 30 years of observations. Pairs of peregrines occupied new territories on Simon Bluff, Upper Biederman Bluff, Woodchopper + 2 km and Webber Creek-Middle.

Literature Cited:

Ambrose S., N. Guldager, S. Daw, and M. Beer. 2005. American peregrine falcon monitoring protocol for Yukon-Charley Rivers National Preserve. National Park Service, Fairbanks, Alaska.

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MacCluskie M., K. Oakley. 2005. Central Alaska Network Vital Signs Monitoring Plan Phase III Report. National Park Service, Fairbanks, Alaska. 308 pp.

U.S. Fish and Wildlife Service. 2003. Monitoring Plan for the American Peregrine Falcon, A Species Recovered Under the Endangered Species Act. U.S. Fish and Wildlife Service, Divisions of Endangered Species and Migratory Birds and State Programs, Pacific Region, Portland, OR. 53 pp.

Alaska Landbird Monitoring Survey: Tongass National Forest 2008 Accomplishments

Gwen Baluss[1], Dennis Chester[1], and Melissa Cady[2]*

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The Alaska Landbird Monitoring Survey (ALMS) is designed to monitor long-term trends in breeding populations of landbirds (and other bird species) within all ecoregions of Alaska. ALMS relies on Distance Sampling methodology to provide density estimates, habitat associations, and population trends of birds over time. During a 10-minute count from each survey point, observers estimate distances to each bird detected and record time of detection, from which detectability functions for each species are estimated. These functions help minimize bias in estimates of breeding densities by accounting for several major factors that influence detectability of individual birds (e.g., observer, habitat, vocalization rates, etc.). We also collect standardized habitat data and construct an atlas of breeding birds for each block. This was the sixth year of implementing ALMS protocol on the Tongass. We completed seven blocks in 2008, which resulted in 870 bird detections. Data were compiled and sent to the USGS Alaska Science Center for analysis. The ALMS program has recorded over 7000 bird detections on the Tongass since 2003. Expected results include improved habitat associations and density estimates for multiple forest species.

2008 Gyrfalcon Breeding Ecology Project

Travis Booms[1], Kevin McCracken[1], and Falk Huettmann[1], Brian McCaffery[2] and Phil Schempf[2], Sandy Talbot[3], and Mark Fuller[4].
[1] University of Alaska Fairbanks; [2] U.S. Fish and Wildlife Service; [3] U.S. Geological Survey (Alaska Science Center); [4] U.S. Geological Survey (Snake River Field Station) and Boise State University Raptor Research Center

The project goal is to elucidate aspects of Gyrfalcon (*Falco rusticolus*) ecology that contribute to Gyrfalcon monitoring and conservation capabilities. These research areas include: 1) Breeding dispersal and nest site fidelity, 2) Statewide nest distribution and population estimation, 3) Survey detectability and design, and 4) Contaminants.

Field work in 2008 was divided into two efforts: 1) Avian influenza surveillance sampling and studying nest site fidelity, dispersal, occupancy, and productivity of Gyrfalcons on the Yukon Delta National Wildlife Refuge (YDNWR), and 2) Ground truthing of a GIS-based statewide predictive Gyrfalcon distribution and population estimate model.

<u>Part 1: Avian Influenza Sampling and Breeding Biology Research on the YDNWR.</u>
The 2008 field season (20 June – 6 July) on the YDNWR marked the sixth consecutive year of data collection at the Volcanoes (our intensive study site), the third consecutive year in the

Askinuk Mountains, and the second year of sampling in the Kilbuck Mountains. Our primary goal was to collect avian influenza samples. Our secondary goals were 1) collect adult molted feathers and nestling blood samples for genetic analysis to investigate site fidelity and dispersal, 2) collect blood and feather samples for contaminants analysis, and 3) collect occupancy and productivity data. In total, we surveyed 278 historical nest sites via helicopter or ground survey, detected at least one adult Gyrfalcon at 26 sites, and observed 51 nestlings. Overall, cliff occupancy and productivity was lower than in previous years; the Volcanoes study site had the lowest productivity of the past 6 years. We collected genetic samples (adult molted feathers) from 22 nest areas. Other data summaries are:

Study Area	# Young Present	#Sampled for AI	# Sampled for Contaminants	# Young Banded
Volcanoes	7	7	0	3
Kilbuck Mountains	28	19	15	20
Askinuk Mountains	16	13	9	9
Totals	51	39[a]	24	32

a. Discrepancies in totals are from nestlings too young to sample or band.

Part 2: Statewide Gyrfalcon Nest Distribution and Population Estimate: Ground Truthing a Spatially Explicit, Predictive GIS Model.

With help from collaborators, we created a predictive, spatially explicit GIS-based model that predicted Gyrfalcon nest distribution across Alaska and estimated the size of the statewide Gyrfalcon breeding population. During 2008, we conducted aerial surveys on the Togiak National Wildlife Refuge, Arctic National Wildlife Refuge, and areas of the Lisburne Peninsula to test model predictions. In each area, we surveyed 50-km^2 plots in model-predicted "high," "medium," and "low" Gyrfalcon nest occurrence categories with small fixed-wing aircraft to identify occupied Gyrfalcon nests and count the number of potential nest cliffs within each plot to ground-truth predictions. Results from surveys will be compared to predictions to assess model accuracy in the real world. Analyses are ongoing.

The project was funded and supported in 2008 by the USFWS Office of Migratory Birds, USFWS Office of Migratory Birds - Raptor Management Office, YDNWR, U.S. Environmental Protection Agency, Arctic National Wildlife Refuge, Selawik National Wildlife Refuge, Togiak National Wildlife Refuge, and the University of Alaska Fairbanks (UAF) Biology and Wildlife Department. The project is the focus of Travis Booms' doctoral dissertation at the University of Alaska Fairbanks.

Bureau of Land Management, Summary of Breeding Bird Surveys and Landbird Projects for the Central Yukon and Eastern Interior Field Offices

Tim Craig, Erica Craig, Ruth Gronquist, Jeanie Cole and Dave Yokel
Bureau of Land Management (BLM), Fairbanks

Breeding Bird Surveys (BBS):

BLM personnel from the FDO conducted 10 BBS routes during summer 2008. These established routes included: Caribou Mountain, Coldfoot and Dietrich Camp (observer: Erica Craig, tecraig@acsalaska.net), Galbraith Lake and Happy Valley (observer: Dave Yokel, Dave_Yokel@blm.gov), Manley Hot Springs and Moose Creek (observer: Jeanie Cole, Jeanie_Cole@blm.gov), Murphy Dome, West Fairbanks and Chatanika (observer: Ruth Gronquist, Ruth_Gronquist@blm.gov). A summary of the results by route can be accessed at: http://www.pwrc.usgs.gov/bbs/

Ungalik River Raptor Survey:

We surveyed approximately 90 km of the Ungalik River for nesting raptors during July 2008. The purpose of this project was to compare the density, species composition and distribution of raptors in 2008 to results of two surveys that were done in 1977 and 1979. The number of nesting raptors doubled since the surveys in the late 1970's. We also identified parameters that characterize raptor distribution along the Ungalik River using GIS analysis. A manuscript is currently *In Prep*., *Co-authors Tim Craig and Erica Craig, BLM.*
Contact: Tim Craig, Bureau of Land Management, Central Yukon Field Office, 1150 University Avenue, Fairbanks, AK 99709. Phone (907) 474-2346; email: tim_craig@blm.gov.

Peregrine Falcon Nest Inventory and Monitoring:

We conducted two season sampling of nesting peregrine falcons within an established long-term monitoring area on the Fortymile River in the Eastern Interior Field Office (~187 km of river). Six years of sampling have been completed over the past 8 years; during this time, number of breeding pairs more than doubled, indicating a significant upward population trend. In addition, we also observed a significant increase in the number of occupied historical territories (from 33% in 2000 to 69% in 2008). Our research suggests that although the monitoring area is below its apparent carrying capacity, the occupancy rate of traditional territories may be stabilizing. A manuscript is currently *In Prep*., Co-authors: Erica Craig and Tim Craig, BLM; Jefferson Jacobs, Oregon Natural Desert Association; Bob Ritchie and John Shook, ABR, Inc.; Ruth Gronquist, BLM.
Contact: Erica Craig, current address: Aquila Environmental, PO Box 81291, Fairbanks, AK 99708. Email: tecraig@acsalaska.net, or Ruth Gronquist, Bureau of Land Management, Eastern Interior Field Office, 1150 University Avenue, Fairbanks, AK 99709. Phone (907) 474-2377; Email: ruth_gronquist@blm.gov.

ALMS Protocol Bird Inventory:

We conducted a bird inventory in the Black River subunit of the Eastern Interior Field Office using a modification of the ALMS protocol (Investigator: Alaska Bird Observatory). Contact: Ruth Gronquist, Bureau of Land Management, Eastern Interior Field Office, 1150 University Avenue, Fairbanks, AK 99709. Phone (907) 474-2346; Email: ruth_gronquist@blm.gov.

Taylor Highway Breeding Bird Survey Route, 2008

Melanie Flamme
Yukon-Charley Rivers National Preserve, Alaska, National Park Service

Yukon-Charley Rivers National Preserve participated by conducting the Eagle Survey BBS route #03-001 along the Taylor Highway in 2007 and 2008. The route was conducted this year on June 12, 2008 by Melanie Flamme (YUGA), beginning at local civil sunrise, 2:25 and ending at 7:01 am.

The Taylor Highway underwent extensive repairs and replacement of signage in 2007 and 2008, requiring careful monitoring of the .5 mile increments and redefining stop descriptions. All stops were marked as waypoints with a GPS and entered into the BBS Mapper website for permanent documentation.

A total of 35 bird species was detected on the Eagle BBS route in 2008 comprising a total of 622 individuals. The most commonly detected species included: Swainson's Thrushes (127), Dark-eyed Juncos (107), Yellow-rumped Warblers (68), White-crowned Sparrows (45), Varied Thrushes (36) and Orange-crowned Warblers (31). Species of note detected during the route included: Chipping Sparrow (7), Yellow-bellied Flycatcher (5), Townsend's Warbler (5), Townsend's Solitaire (1), Say's Phoebe (1), and Western Wood-PeWee (1). One new species was detected on the route this year, the Tennessee Warbler (1).

Table 1. Total Number of Bird Species and Individuals Detected During the 2008 Eagle Breeding Bird Survey Route.

Code	Name	Number of individuals	Comments
LEYE	Lesser Yellowlegs	2	
WISP	Wilson's Snipe	1	
UNWO	Unid. Woodpecker	2	
OSFL	Olive-sided Flycatcher	11	
WEWP	Western Wood-Pewee	1	
YBFL	Yellow-Bellied Flycatcher	5	
ALFL	Alder Flycatcher	19	
HAFL	Hammond's Flycatcher	11	
SAPH	Say's Phoebe	1	
GRAJ	Gray Jay	10	
CORA	Common Raven	2	

Code	Name	Number of individuals	Comments
VGSW	Violet-green Swallow	12	
BASW	Bank Swallow	1	
RCKI	Ruby-crowned Kinglet	11	
TOSO	Townsend's Solitaire	1	
GCTH	Gray-cheeked Thrush	20	
SWTH	Swainson's Thrush	127	
HETH	Hermit Thrush	3	
AMRO	American Robin	29	
VATH	Varied Thrush	36	
BOWA	Bohemian Waxwing	1	
TEWA	Tennessee Warbler	1	New species for route
OCWA	Orange-crowned Warbler	31	
YEWA	Yellow Warbler	6	
YRWA	Yellow-rumped Warbler	68	
TOWA	Townsend's Warbler	5	
NOWA	Northern Waterthrush	3	
WIWA	Wilson's Warbler	12	
CHSP	Chipping Sparrow	7	
FOSP	Fox Sparrow	5	
LISP	Lincoln's Sparrow	12	
WCSP	White-crowned Sparrow	45	
DEJU	Dark-eyed Junco	107	
WWCB	White-winged Crossbill	8	
UNRE	unid. Redpoll	6	
		622	**Total individuals**

2008 Update: Fort Wainwright (Donnelly Training Area (DTA) and Gerstle River Training Area (GRTA), Alaska

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MONITORING/INVENTORY

Sharptailed Grouse Breeding Surveys

Ruffed Grouse Drumming Surveys
The Alaskan Sharp-tailed grouse (*Tympanuchus phasianellus caurus*) inhabit eastern Interior Alaska, Game Management Unit (GMU) 20D in particular. The subspecies is thought to be the most northern ranging of the 6 subspecies of sharp-tailed grouse in North America. Little is currently known about their distribution and population in the Interior of Alaska. Historically, annual spring surveys have been run to determine lek sites. Surveys were conducted at all known lek sites on DTA east between late April and late May 2008. Nest searches occurred during the months of May and June using a pointing dog. No nests were found.

Ruffed Grouse Drumming Surveys

Ruffed grouse surveys were initiated along Meadows Road in Donnelly Training Area (DTA) during the mid 90's. Methods are consistent with state and national survey techniques. Survey routes consist of ten stops spaced roughly a mile apart along a roadway in habitat favoring Ruffed Grouse. At each stop, the observer listens for a period of four minutes, and records drumming and direction to the grouse. Any sighting should also be documented and recorded. It is best to conduct counts during peak drumming periods, usually in the early morning and late evening, roughly ½ hour before sunrise and 2 hours before sunset. Date, time, temperature, wind, and rain should all be documented. Surveys should be conducted during periods of calm or light winds (< 20 km/h) and precipitation minimal. The route was run once in late April. Data was compiled and incorporated into the Ruffed Grouse population status in Interior Alaska as part of the Upland Game report submitted annually by W. Taylor.

Cavity nesting Ducks

In 2000, a duck box project was reinitiated on the Meadows Road lake system, on Donnelly Training Area (DTA), Alaska. The purpose of the project was to encourage cavity nesting waterfowl to take residence on lake systems, and provide educational and aesthetic value to boaters and outdoor enthusiasts on military lands. The waterfowl species targeted by this project, are the Bufflehead, *Bucephala albeola*, Barrow's Goldeneye, *Bucephala islandica*, and Common Goldeneye, *Bucephala clangula*. The DTA cavity nesting duck program currently monitors 34 boxes. This project has provided nesting habitat for waterfowl, as well as other avian species and even small mammals. Boreal Owls, *Aegolius funereus*, have been found occupying the boxes as well as Red Squirrels, *Tamiasciurus hudsonicus*. Eighty percent of DTA Meadows Lake boxes were utilized by waterfowl in 2008 as evidenced by eggs, eggshell fragments and down.

A motion camera was installed in 2008 facing the opening of two nest boxes prior to the arrival of ducks and removed after the chicks had left the box. Lynx predation on unfledged ducklings was documented. In 2009, nest box monitoring periods, and number of visits will be increased, and observations will start earlier in the spring. We hope to detect active nesting and count number of broods before dispersal. Additional information we hope to obtain are breeding strategies including Intra- and Inter-specific parasitism. We also hope to document additional predation utilizing game cameras if and when it occurs.

ALMS/Off-Road Point Counts

DTA has participated in ALMS since 2006. Two ALMS plots have been successfully established in the DTA. In 2008, we successfully surveyed our ALMS plot and data has been forwarded to the USGS.

Gerstle River Training Area bird surveys: Many of the road corridors in GRTA were surveyed for breeding birds in 2008. Opportunistic observations were also recorded. Currently, very little is known about GRTA, and the purpose of these surveys was to develop a species list for the training area.

Whimberel Surveys

Whimberel surveys were conducted in the vicinity of Donnelly Dome. Birds arrived in late May and no birds were observed after mid June. No nesting activity was observed at the site in 2008.

Upland Sandpiper Surveys
We opportunistically surveyed Donnelly Flats and Buffalo Drop Zone for upland sandpiper pairs during the breeding season. No nesting activity was observed at the sites in 2008.

Landbird update from Tetlin NWR, Alaska 2008

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MONITORING/INVENTORY

First Arrivals/Spring Phenology

Tetlin Refuge has recorded spring arrival dates for migrants passing through the Upper Tanana Valley since 1982. Until 1999, most arrival dates were obtained from incidental observations made by the staff and the public. In 1999, a phenology route was established that is surveyed 2-3 times/week in April and May following standardized procedures. In 2008, we conducted 23 surveys between 7 April and 29 May.

North American Migration Count (NAMC)

The NAMC tallies the number of individuals by bird species within a defined area on the second Saturday in May. The NAMC is similar to the Christmas Bird Count, however, the NAMC is conducted on the same day throughout the continent and thus provides a "snapshot" of the progress of spring migration. Locally, It bolsters our spring phenology efforts and it's easily incorporated into outreach activities associated with International Migratory Bird Day. We conducted our 16th annual count on 10 May with three parties tallying 1513 individuals and 70 species within our count area (GMU 12).

Breeding Bird Survey (BBS)

Tetlin Refuge has participated in the BBS program since 1989, and at one point completed eight routes in one year! We have surveyed four routes in the Upper Tanana Valley with the same observer since 1999. We surveyed all four routes in 2008 and points on two routes were mapped with a GPS. A large portion of one route on the Taylor Highway burned in 2004 providing a unique opportunity to document changes in avian species composition relative to successional change over time.

ALMS/Off-Road Point Counts

Off-Road Point Counts (ORPC) routes were established on the Refuge in 1994 as part of a regional pilot project to determine the feasibility of using ORPC to monitor trends in landbirds on large roadless areas. Seven routes were randomly established within the major habitat types on the Refuge. After the refinement of the ALMS program we adjusted our protocols to mesh with the new ALMS protocols and continued to conduct our counts and contribute our data to the statewide effort. We completed our 15th year of point counts in June.

Raptors

Tetlin Refuge has collected raptor nesting territory occupancy and productivity data in GMU 12 in the Upper Tanana Valley annually since 1991. Raptor occupancy and productivity surveys were completed between 10 May and 30 July 2008. We made 359 observations at 171 nest sites of eight species in 134 nesting territories. Bald Eagle (*Haliaeetus leucocephalus*), Osprey (*Pandion haliaetus*) and American Peregrine Falcon (*Falco peregrinus anatum*) nests accounted for 81% of 501 raptor nests documented since 1961. Most raptor nests were located along rivers and wetlands within the habitats that sustain their prey.

In 2008, Bald Eagle occupancy (60.0%; $\bar{x}$ = 66.3% ± 3.5 (1991-2007 mean ± 95% C.I.) was slightly lower than the long-term mean for 65 nesting territories surveyed. Success (54.5%; $\bar{x}$ = 51.8% ± 6.2) was within expected ranges, while both productivity (0.88 young per occupied nest; $\bar{x}$ = 0.64 ± 0.09) and mean brood size (the highest recorded since 1991 at 1.61 young per successful nest; $\bar{x}$ = 1.24 ± 0.07) were higher than expected.

Osprey occupancy was lower than expected in 2008 (67.7%; $\bar{x}$ = 75.8% ± 3.1) for 31 nesting territories surveyed. Success (57.1%; $\bar{x}$ = 59.3% ± 6.0), productivity (1.10; $\bar{x}$ = 1.10 ± 0.15) and mean brood size (1.92; $\bar{x}$ = 1.85 ± 0.16) were all within expected ranges.

In 2008, Peregrine Falcon occupancy (83.3%; $\bar{x}$ = 88.7% ± 5.8), success (92.3%; $\bar{x}$ = 87.5% ± 6.5), productivity (2.23; $\bar{x}$ = 2.32 ± 0.33) and mean brood size (2.42; $\bar{x}$ = 2.62 ± 0.26) for 18 nesting territories surveyed were all within expected ranges. Mean dates were estimated for Peregrine Falcons using nestling ages (n = 29) for egg laying ($\bar{x}$ = 18 May 08, range 10-25 May 08), hatching ($\bar{x}$ = 20 June 08, range 12-27 June 08) and fledging ($\bar{x}$ = 30 July 08, range 22 July-6 Aug 08). The number of known falcon territories has increased from three to 21 since 1991.

Fall Migration Banding Station

This fall marked the 16th year of operation for our fall migration banding station. Birds were banded from 29 July through 26 September to obtain data on species composition, fat deposition, age and sex composition, and seasonal patterns of abundance during fall migration in the Upper Tanana Valley. We banded 2029 birds of 31 species this year, and recaptured 123 birds of 14 species. These numbers are slightly below our long-term average of 2248 birds/33 species (new captures) and 220 birds/18 species (recaptures), but well within the normal range. Unusual species banded this year included one Brown Creeper and one Pine Grosbeak. We caught record

high numbers of Fox Sparrows (226) and Northern Waterthrushes (42), approximately double the long-term averages for these species, and record low numbers of Savannah Sparrows (5; $\bar{x}$ =18). During fall banding, we collected blood and feather samples for a cooperative project with BioDiversity Research Institute on mercury contamination in passerines (see *Mercury* section under *Research* for details.)

Christmas Bird Count (CBC)

Last December Tetlin Refuge organized the 21st annual Tok CBC! Over the years, this one-day count has been a great way to involve the community in citizen science and it is especially popular with the bird feeder watchers (particularly on those count days when it is -30). During last years count we recorded record numbers for redpolls, Pine Grosbeaks, Boreal Chickadees, and Northern Goshawk. We also recorded two Gyrfalcons, a new species for the count circle.

RESEARCH

Breeding Ecology and Habitat Affinities of the Rusty Blackbird

This project was designed to bolster current efforts by the US Fish and Wildlife Service (USFWS) and the Alaska Bird Observatory (ABO) to document habitat associations, species distribution, and breeding phenology of Rusty Blackbirds in southcentral and interior Alaska. The project on the Tetlin Refuge was funded through a Challenge Cost Agreement with ABO that provided funds and logistical support for a graduate student and one technician. The goal was to build on current efforts elsewhere using standardized protocols to record breeding phenology and habitat associations of this boreal forest obligate.

The study area was located on the Tetlin Refuge between Scottie and Desper Creeks adjacent to the Alaska Hwy. Thirteen nests were located and observed between 19 May and 19 June. Observations made during the nesting period suggested that there were possibly 11 additional nesting pairs in the study area. Vegetation surveys were completed at 7 of 13 nest sites - 6 nest sites were inaccessible due to bear activity.

Mean clutch size was 5.3 eggs (s.d. = 0.65, n = 12, range 4-6). Mean nestling number reflected some attrition with 4.6 nestlings (s.d. = 0.53, n = 7, range 4-5) .The mean number of young fledged per nest was 4.8 (s.d. = 0.50, n = 4, range 4-5). (The sample size declined at each stage due to nest failure and the inability to return to nests due to bear activity). Nest success was 40% when nests found at the building stage were included. However, the small sample size of nests in the building stage (n = 4) and one failure observed may artificially lower survival estimates. Removal of the building stage nests from the analysis increased the estimate of nest survival to 51%.

Nest site selection on the Refuge was also similar to other studied breeding populations. Rusty Blackbirds at Tetlin used willow shrub as a support in 71% of the nests. Black spruce was the support for the remaining 29% of the Tetlin nests. Nest concealment was high (50- 75% or >75%) for the vast majority of nests in all areas studied. Architecture of the vegetation may be more important than plant species.

Peregrine Falcon Response to Quarry Blasting During the Nesting Period

Over the last decade, we have documented a substantial increase in the number of Peregrine Falcons nesting in road cuts and rock quarries along the Alaska Highway (from 1 in 1995 to 5 in 2004). As falcon use of the highway corridor has increased, so has the number of conflicts with highway construction and other activities. This summer a large, multi-year construction project was launched to replace a damaged runway at the Northway airport. To supply the gravel for this project a large quarry was put into operation adjacent to the Alaska Highway and a road cut where Peregrine Falcons have nested and produced 27 young since 2000. During the course of the summer we made several observations of the nest site to access occupancy, productivity, and behavioral response to quarry activity. In particular, we were interested in how the nesting pair would react to the frequent blasts in the quarry during the nesting period.

We made 11 observations at the nest site between 10 May and 30 July. The pair located their nest on a ledge approximately 1 -2m below the top of a rock face on the north side of the Alaska Highway. Although the rock quarry was not visible from this point, the edge of the blast zone was only 30m from the top of the rock face directly above the nest. The nest could easily be observed with a spotting scope from about 50m away on the opposite (south) side of the highway. However, the construction company would not allow us to make observations during blasts in the quarry because of safety concerns. In light of this restriction, we placed a video camera directly across from the nest and recorded the behavior of the adults and young at the nest ledge immediately before and after the blasting.

The pair were observed incubating on 15 May and we counted four eggs on 21 May. Young were first observed in the nest on 27 June and four young were seen in the nest on 17 July and estimated to be 27 to 35 days old. The nest was last observed on 30 July at which point the young had moved from nest ledge and two young were observed 10 – 15m away.

Over the course of the summer, we observed the nest site during five blasts in the quarry. We observed the first blast on 19 May and found the female incubating immediately before and after the blast. We did not have the video camera at this time and from our vantage point could not see the nest site but the female did not appear to leave the ledge during the blast. We attempted to film the female on the nest on 5 June but ran out of disc space seconds before the blast. However, the female was on the nest immediately before and after and did not appear to leave the nest during the blast. We later filmed the nest ledge on two occasions with young present. On these occasions the young seemed oblivious (no visible reaction) but both adults became agitated and vocalized for several minutes after each blast. Our last observation was filmed on 29 June but the young had left the nest ledge and could not be located before the blast. We did however record the vocalizations of the adults and they once again became very vocal after the blast.

During our observations incubating adults seemed visibly unaffected by the blasting (i.e., they did not move from the ledge or vocalize). In fact, during all our visits to the site during incubation, the pair seemed more concerned with our presence on the opposite road cut than activities in the quarry. However, after the young hatched the adults became more vigilant and

were often observed perched in trees or other prominent features near the nest ledge. During this stage, the adults would vocalize and fly around the nest ledge in a very agitated state after each blast. The young on the other hand appeared to be oblivious to the blast and the calls of the adults.

The quarry will be in operation again next year and we plan to closely monitor the nest and film more behaviors if possible.

Mercury Contamination in Alaskan Birds

This summer the BioDiversity Research Institute (BRI) and the U.S. Fish and Wildlife Service cooperated in a new study to measure methylmercury (MeHg) levels in birds throughout Alaska. Tetlin NWR participated in this effort by collecting blood and feather samples of passerines and sharp-shinned hawks caught during our fall migration banding. The study seeks to (1) provide a baseline assessment of MeHg risk to Alaskan birds; (2) determine biological Hg hotspots in Alaska; and (3) compare MeHg levels between birds breeding in Alaska and other parts of North America. We contributed samples from Gray-cheeked and Varied Thrushes, Northern Waterthrushes, Sharp-shinned Hawks, Yellow-bellied Flycatchers, and Lincoln's Sparrows.

Developing Site occupancy Models for Peregrine Falcon Monitoring

USFWS Biometrician Joel Reynolds and Biometric Intern Amber Hackstadt began a project this summer to develop occupancy models for our Peregrine Falcon surveys and make recommendations on survey design and data collection. They made a site visit in June to see how aerial and ground surveys are conducted and returned in August to discuss preliminary results. They used existing data sets to estimate detection probability and models were tested and selected. A draft report is pending.

2008 Update: Fort Richardson (FRA), Alaska

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ALMS

In 2008, an ALMS grid was established in the Arctic Valley area of Fort Richardson. A total of 21 out of the 25 points were surveyed. Seven distinct habitats ranging from tall shrub thicket to dwarf shrub mat were sampled. A total of 24 bird species were identified (mean of 6.14, range 3-11) with 174 overall detections. Some species may have been missed due to later arrival in 2008 as a result of a severe snow event in late April.

Breeding Bird Survey (BBS)

The FRA BBS route has been run continuously since 1994. Due to injury, a new observer (McKee) ran this route in 2008. A total of 37 species were identified (mean of 6.44, range 2-11) with 502 overall detections. Four species (Alder Flycatcher, Swainson's Thrush, Yellow-rumped Warbler, and Junco) accounted for 60% of all detections.

2008 Landbird Surveys on the Alaska Maritime NWR

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The Alaska Maritime National Wildlife Refuge regularly collects landbird data at various remote study sites in the Aleutians and Bering Sea, usually in association with long-term seabird monitoring projects. During the 2008 field season (May – September), annotated lists of bird observations were compiled from either short visits or full-season stays on Agattu, Buldir, Kiska, Little Kiska, Davidof, Khvostof, Ayugadak, Little Sitkin, Kasatochi, Amatignak, Aiktak, St. Paul and St. George Islands. Standardized line transect surveys along beaches for landbirds and shorebirds were conducted on Buldir, Kasatochi, Ayugadak, Aiktak, Kiska, Little Kiska, Davidof, Khvostof, Ayugadak, Little Sitkin, St. Paul and St. George Islands. The surveys on Kiska, Little Kiska, Davidof, Kvostof and Ayugadak were newly-established in 2008 to compare with nearby Rat Island for potential changes following the attempted rat eradication this fall. A long-term Off-Road Point Count survey was conducted on Ugamak Island in the eastern Aleutians.

Inventory of Breeding Birds in Aniakchak National Monument & Preserve

Dan Ruthrauff[1*] and Bill Thompson[2]
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In a continuation of National Park Service-sponsored survey efforts conducted from 2004–2006 in Katmai (KATM) and Lake Clark National Parks and Preserves, researchers from USGS Alaska Science Center, KATM, and the Southwest Alaska Network (SWAN) conducted an inventory of breeding birds in Aniakchak National Monument and Preserve (ANIA). Scientific research in ANIA has primarily focused on its geology, but the region was believed to support an intriguing avifauna by virtue of its proximity to marine waters, relatively broad range of elevations, and geographic position along major migratory pathways. To date, no park-wide systematic inventory of landbird resources had been completed in ANIA; previous bird investigations in the region had primarily focused on coastal estuaries.

We deployed three, two-person crews from 31 May–8 June, 2008. Crews visited nine 10-km x 10-km study plots, as well as five additional sites believed to contain relatively unique habitats potentially supporting unusual or rare bird species. We conducted 136 point transects across these sites at elevations ranging from sea level to nearly 700 meters. Extensive snow cover and persistent foul weather marked our time in the field, but our efforts yielded the detection of 68 bird species, including seven (Gadwall, Golden Eagle, Merlin, Marbled Godwit, Downy Woodpecker, Horned Lark, and Hoary Redpoll) not previously detected in ANIA. The detection of Marbled Godwit was accompanied by the discovery of a 4-egg nest, the first active nest ever discovered for this subspecies. The five most-commonly detected bird species, in order of abundance, were Golden-crowned Sparrow, Wilson's Warbler, Hermit Thrush, Orange-crowned Warbler, and Fox Sparrow. These birds were some of the more commonly detected species during our inventory of KATM in 2005 and 2006. In general, the avifauna of ANIA was similar to that of KATM, but the fact that we detected fewer species overall (68 vs. 92) largely reflected the less complex habitat communities we encountered at ANIA. Most sites, even at low elevations, consisted of low or dwarf scrub habitats and bare ground.

These efforts complement surveys conducted across nearly the entire Alaska Peninsula from 2004–2007 by Susan Savage of the Alaska Peninsula / Becharof National Wildlife Refuge, and provide basic information on the occurrence and distribution of breeding landbirds in ANIA. Results from this inventory will be published in a NPS report, available in February, 2009 on the Biological Inventory Program page of the SWAN website (http://science.nature.nps.gov/im/units/swan/index.cfm?theme=inventory_species).

2008 Landbird Inventory & Monitoring, Alaska Peninsula/Becharof NWR

Susan Savage
Alaska Peninsula/Becharof NWR

Several projects contributed to landbird inventory and monitoring at the Alaska Peninsula/Becharof NWR. As part of a pilot Inventory and Monitoring (I&M) project begun in 2007, point transects were completed at four mini-grids for a total of 20 points. In 2007, point transects were completed at these same four grids in addition to five others for a total of 49 point transects. The following species were most commonly counted in 2007: golden-crowned sparrow, hermit thrush, Wilson's warbler, American tree sparrow, savannah sparrow, orange-crowned warbler and yellow warbler. Additional analysis of species composition, abundance, and habitat relationships has yet to be accomplished. Along with point transects, daily checklists were also completed at each grid. The I&M project also included the inventory of plants and soils at each point and terrestrial invertebrates on each grid. Other landbird projects included a breeding bird survey along the Alaska Peninsula Highway, spring arrival phenology monitoring, and rare bird reporting.
Contact: Susan Savage, Alaska Peninsula/Becharof NWR, PO Box 277, King Salmon, AK 99613. Phone (907) 246-1205; Fax: (907) 246-6696; e-mail: susan_savage@fws.gov.

APPENDIX I: 2008 MEETING NOTES

Meeting notes are brief; Dave Tessler is currently compiling a more complete set. Thanks Dave.

DAY 1 - Wednesday, 10 December, 2008

UPDATES

UPDATE ON ACTVITIES FOR AUDUBON ALASKA

Taldi Walter, Communications and Education Specialist
Matt Kirchoff, Director of Bird Conservation

Audubon Alaska presented updates on several bird conservation and citizen science initiatives, including Alaska eBird, Important Bird Areas program, Alaska WatchList, Christmas Bird Counts, and Great Backyard Bird Count. Collectively these projects engage more than one thousand Alaskans, plus many birders from out of state, in contributing annually to bird conservation and to avian databases in Alaska. Special emphasis was given to Alaska eBird, including an on-line demonstration of how to use eBird and what kinds of data and information can be gleaned from it.

HELPFUL SITES

Alaska Audubon: http://www.audubonalaska.org/.
Alaska eBird: http://ebird.org/ak/.
Alaska Avian Knowledge Network: http://www.avianknowledge.net/content.
AK Audubon Important Bird Areas: http://www.audubonalaska.org/BirdSci_IBAs.html.
AK Audubon bird Watchlist: http://www.audubonalaska.org/BirdSci_WatchList.html.

AK eBird is a good venue for statewide data compilation. AK eBird, part of the larger national eBird database compiles observations useful for distribution and abundance queries. There was also discussion regarding the Avian Knowledge Network AKN node for Alaska. Some suggested that we should be careful to pick between the two so we don't have to resubmit info or worse it is shared between data bases and doubled. The BBS and ALMS will not be placed in the AK eBird system as this information is already incorporated into the Alaska Avian Knowledge Network.
The Alaska Audubon Society is working to identify critical habitat sites for birds. The effort, Important Bird Areas (IBA) program ascertains areas that are important for maintaining bird populations and focuses on efforts to conserve and protect these areas. The website provides a map of Alaska IBA's and one will quickly notice the need for areas in the interior. Finally, the AK Audubon Society, in cooperation with the Boreal Partners in Flight, has compiled the Alaska Bird Watchlist. It is design as an early warning system focusing on at-risk populations before they become a conservation concern. Basically, keeping common birds common.

- Additional Comments:
- Colleen Handle (USGS) suggested:
    1. It's important to document and / or discern Dates of first arrival from a database. See if arrival dates have shifted through time.
    2. Distributions (where are specific species in the state).

ALL-BIRD CONSERVATION PLAN FOR BCR4
Susan Sharbaugh, Alaska Bird Observatory

Susan presented an update on the BCR4 Bird Conservation Plan. I have taken the liberty to cut and paste the following from the www.AlaskaBird.org site:

The Alaska Bird Observatory and Canadian Wildlife Service are working together to develop an All-Bird Conservation Plan for the Northwestern Interior Forest. This large conservation region encompasses land in interior Alaska, the Yukon Territory, western Northwest Territories, and northern British Columbia. Regional conservation planning has become an instrumental component in prioritizing conservation needs for North America's diverse avifauna. Such planning is essential to help determine where limited resources should be directed to meet the most pressing regional conservation needs for birds. To this end, the North American Bird Conservation Initiative (NABCI), a cooperative venture with representation from Canada, Mexico, and the United States, was developed to promote avian conservation. NABCI has partitioned the continent into 67 bird conservation regions following ecosystem boundaries. One of the largest is Bird Conservation Region 4 (BCR4), the Northwestern Interior Forest.

Currently, multiple plans address bird conservation in parts of this region. These plans focus on specific groups of birds (for example, landbirds, waterfowl, or shorebirds) in specific regions (Alaska, Yukon, British Columbia) under specific administration (state, territorial, provincial, federal). Land managers and other interested parties must glean information on priority species and their associated habitats from a myriad of sources. A regional All-Bird Conservation Plan will integrate and update information from all these sources and present it in a comprehensive manner. This single source will provide information on all birds and their associated habitats across BCR4. Regional patterns will be readily discernible, along with regional and local development and conservation concerns.

This is an international effort to coordinate conservation efforts across a vast stretch of relatively unaltered boreal habitat. Half of the birds found in North America regularly use or breed in the boreal forest. The vast majority of the avifauna within BCR4 is common; we have a rare opportunity to maintain populations at these levels rather than manage to increase numbers above a threatened or endangered threshold. We will 1) assess the conservation status of all bird species that regularly occur in BCR 4, 2) identify priority species and subspecies for the region, 3) describe habitats used by identified priority species, 4) identify threats to priority species and habitats within the BCR, and 5) identify specific needs for inventory, monitoring, research, and conservation for birds in the region. Partners from various state, provincial, territorial, federal, Alaskan Native, Canadian First Nation, industry, and non-governmental groups will provide input to the Plan.

We live during a period of change in the North. Increasing resource development and recent shifts in climate cycles will have a profound effect on our natural resources. Management decisions made here not only affect the local environment but have far-reaching effects on regional populations of birds. It is important that these decisions be made with the most comprehensive and complete information available. The All-Bird Conservation Plan for BCR4 will supply this information to all interested parties.

ABO has received a partner grant from the Alaska Department of Fish and Game (ADFG) to coordinate, develop, and write this All-Bird Conservation Plan. We have also received grants from the Alaska Conservation Foundation and the Mountaineers Foundation. Our current partners include the Canadian Wildlife Service, U.S. Fish and Wildlife Service Migratory Bird Office in Anchorage, ADFG Non-game Program, Alaska Audubon, and True North GIS.

- Additional Comments:
- The map is complete and Susan has a GIS layer. The resolution is to 1km, so it is course, but it is something. The final map was based on the AKVEG/ Land Classes: M. Fleming 1998. They collapsed the veg. classes from AK and Canada into 8 Habitat Classes, and each class has its associated SOC birds.

UPDATE OF ABO EDUCATION PROGRAMS
Susan Sharbaugh, Alaska Bird Observatory

There are various programs at ABO and the outreach continues to grow. The following programs are currently in place.
ABO Junior Bird Club
ABO Mentoring Program
Teachers: School field trip signup
Visitor programs
School and youth educational opportunities
Alaska Bird Camps
Internship programs
Songbird Teaching Unit

BPIF BUSSINESS PART 1

Dave Tessler stepped down and Mellissa Cade of Wrangell Ranger District, Tongass National Forest is New Co-chair with Amal Ajmi.

CONSERVATION, INVENTORY, AND MONITORING

2008 Mercury Levels in Alaska Birds Biodiversity Research Institute (BRI)
David Evers
http://www.briloon.org/science-and-conservation/centers/mercury-toxin.php

In the acidic wetlands of the boreal forest, the impact of acid rain and mercury contamination may be exacerbated. In addition, mercury contamination may be an issue in regions of the southeast where the Rusty Blackbird winters. David Evers has initiated a project sampling both Rusty Blackbirds and other species that share its habitat, to look for evidence of high mercury levels and depletion of calcium (an effect of acid rain). He has run analysis on blood and tissue samples from Alaska, and will be analyzing feathers from historical samples in museum collections. He is particularly interested in obtaining new samples from the scattered populations in northern New England, as well as the coastal plain and piedmont of the Carolinas. A field team is headed to collected samples in the Carolinas later this winter, and material is being taken from birds in the LMV as well.

BBS IN ALASKA: BRIEF UPDATE
Steve Matsuoka – USFWS
Do not have notes for this.
YELLOW-BELLIED FLYCATCHERS IN KANUTI CANYON: HOW LONG HAVE THEY BEEN THERE?!
Chris Harwood – USFWS

Chris recognized that the Yellow-bellied Flycatcher had been historically misidentified during the 2008 Kanuti Canyon BBS. The presentation was meant to reinforce the idea of refreshing bird skills annually, and to limit distractions during the survey.

ALASKA LANDBIRD MONITORING SURVEY (ALMS)
Colleen Handel – USGS
Do not have notes for this.

- Additional Comments:
- Carol McIntyre brought up the debate over Ocular verses Intensive Vegetation sampling methods. Are we sure that what we are measuring for ALMS is accurate? There was some discussion of literature and statistical analysis with regards to the level and purpose of veg. sampling.

ALMS FUNDING UPDATE< SCIENTIFIC REVIEW & PROGRAM STRATEGY
Steve Matsuoka – USFWS

USFWS, USGS and ADF&G have pooled about 0.5 million for ALMS in the hopes it will provide a platform to launch USFWS participation. As it stands, only ½ of the proposed ALMS grids are currently being surveyed.

EIELSON AFB BASH MONITORING
David Shaw – ABO
Do not have notes for this.

PRESENTATION ON DEVELOPMENT OF:
1) NEW AVIAN KNOWLEDGE NETWORK NODE;
2) BREEDING BIRD ATLAS FOR ALASKA
Dave Tessler – ADF&G
Do not have notes for this.

PRESENTATION ON ALASKA GAP
Tracey Gotthardt – ANHP
http://aknhp.uaa.alaska.edu/AK_GAP/index.htm
Tracey presented an update on the Alaska GAP Analysis Project. I have taken the liberty to cut and paste the following from her PowerPoint presentation:
The primary goals:

- Keep common species common by identifying "conservation gaps"
- Provide information about conservation gaps and biodiversity to inform resource management decisions

What information do you need to identify conservation gaps?

- Information on where species live
- Information on protected areas

Objective 1

- Map current land cover or vegetation

Objective 2

- Map where species live (e.g., terrestrial vertebrates)

Objective 3

- Map boundaries of preserves and protected areas

Objective 4

- Identify conservation gaps by conducting a gap analysis
- Single species or multiple species

Project Deadlines

YEAR 1

- Finalize preliminary range maps
- Occurrence data gathering

YEAR 2

- Continue occurrence data gathering and synthesis
- Begin inductive modeling

YEAR 3

- Finalize inductive models
- Build deductive models
- Merge models
- Expert review

YEAR 4

Conduct GAP Analysis

GAP DATA PRODUCTS:

SPECIES DISTRIBUTION MODELING

1. Occurrence Database.
2. Habitat associations database.
3. Range maps, modified by occurrence data and expert reviewed.
4. Predicted distribution maps derived from a combination of deductive an inductive modeling. Modified with range maps and expert reviewed.
5. Species richness maps for combined taxa.

USES IN CONSERVATION PLANNING

- Provide a centralized repository and distribution center for species occurrence data, range maps, predicted distribution maps, and metadata will allow researchers and land managers to better identify gaps in existing knowledge.
- Species predictive distribution models can help guide inventory, monitoring, and research efforts, and allow for more efficient use of field time and funds.

- May aid in the identification of focus areas that support the persistence of key species or to identify priority areas for conservation (i.e. migration corridors and landscape linkages between larger tracts of managed lands).
- Will supply a baseline of information that can be used for future climate change modeling scenarios.
- Bird occurrence data can be used to provide an initial influx of data into the Avian Knowledge Network database for Alaska.

SPECIES OF CONCERN

STATUS ASSESSMENT, INFORMATION NEEDS AND CONSERVATION MEASURES FOR OLIVE-SIDED FLYCATCHER IN ALASKA

Nora Rojek

U.S. Fish and Wildlife Service, Fairbanks Fish and Wildlife Field Office, Endangered Species Program, 101 12th Avenue, Room 110, Fairbanks, AK 99701, Nora_Rojek@fws.gov

In 2008, the Service completed a Candidate status assessment for Olive-sided flycatcher (*Contopus cooperi*) to determine if the Alaska-breeding population, which is an estimated 23% of the global breeding population, should be considered for listing under the Endangered Species Act. Based on BBS data over the last 40 years (indicating a 3.3% annual decline throughout North America and Canada from 1966-2007), there is evidence that the species has been declining. As a result of the documented decline, the species was recently listed as threatened in Canada, and is a Partners in Flight "species of continental concern." Within Alaska, the decline rate is lower (estimated 1% annual decline from 1982-2007), however sampling has been poor resulting in low precision. We lack good information on population trends, as well as natural history and knowledge of specific factors affecting the species, to adequately evaluate the flycatcher's status in Alaska. Thus, we determined we do not have sufficient information to support listing the species at this time. The persistent decline of the species both within Alaska and throughout its range does highlight the need for continuing conservation concern. Potential threats, as well as recommended conservation and management needs both within Alaska and range-wide, were discussed.

BREEDING ECOLOGY OF RUSTY BLACKBIRDS IN ALASKA AND NEW ENGLAND – PROJECT UPDATE

Steve Matsuoka – USFWS, David Shaw – ABO, and Luke Powell – U. of Maine

I do not have notes for this.

RUSTY BLACKBIRDS: UPDATES ON INTERNATIONAL WORKING GROUP PLANS AND PROGRESS, AS WELL AS RECENT WORK ON AK MILITARY LANDS
Steve Matsuoka – USFWS
The following was cut from:
http://nationalzoo.si.edu/ConservationAndScience/MigratoryBirds/Research/Rusty_Blackbird/first_year.cfm

The International Rusty Blackbird Technical Group: The First Year in Review
In March 2005, the International Rusty Blackbird Technical Group (IRBTG) was formed in response to the severe declines that have been document in the species. The causes of the decline remain unclear and the species has not received sufficient attention to understand the underlying problems and to develop management solutions. To begin to address the lack of knowledge and awareness, the IRBTG developed a network of people focused on research and/or elevating awareness in the public and relevant organizations and agencies.

The IRBTG was established to develop an integrated and coherent approach to research and conservation of this species. Through increased communication and collaboration, the key issues can be defined and human and monetary resources focused in a strategic way. In the first year, the IRBTG has increased communications between RUBL researchers through regular meetings, a list-serve, and a website. More important, the IRBTG developed an over-arching research strategy, which serves as a conceptual tool for organizing and prioritizing research activities.

Starting with an almost clean slate, the IRBTG has make substantial, tangible headway in both research and educational outreach on the decline of the Rusty Blackbird. Here we outline the specific accomplishments in breeding and wintering ground research, isotope analysis, outreach both among professionals and the public at-large, and resource development for future work.

Breeding Season Research
The current distribution and areas of concentration of breeding Rusty Blackbirds in the boreal zone remains poorly documented. The Alaska Natural Heritage Program in cooperation with the Alaska Department of Fish and Game compiled information on the distribution of Rusty Blackbirds in Alaska. Data sources included the North American Breeding Bird Survey, Alaska Landbird Monitoring Survey, Checklist program on DoD lands, and incidental observation by biologists across the state. These data suggest that wetlands and riparian areas along the Yukon and Kuskokwim rivers and their tributaries, particularly in western Alaska, supported the highest densities of breeding birds in the state. These data will be analyzed to identify important habitats for breeding Rusty Blackbirds in Alaska.

Meanwhile, biologists from the Canadian Wildlife Service will be surveying Canadian sites where Rusty Blackbirds were reported to be common in past decades. This includes areas surveyed for the environmental impact report for a proposed gas pipeline in the MacKenzie region of the Northwest Territories. In the Yukon Territory, Rusty Blackbirds have been included in the roadside wildfowl surveys with good success: Rusties were foun at a quarter to a third of the 257 focal wetlands.

Collection of blood and feathers for isotope, genetic, and mercury analysis (see below) was initiated. Steve Matsouka, working with other biologist from the U.S. Fish and Wildlife Service

and Alaska Bird Observatory, tested capture techniques and sampled feathers and blood from 15 Rusty Blackbirds in Bethel, Alaska, in August 2005. Birds were captured using a combination of mist nets and baited funnel traps constructed from hardware cloth. Traps were effective in capturing Rusty Blackbirds considering the small number of birds in the area. Pam Sinclair and her coworkers at the CWS collected feather samples from over 100 blackbirds during spring and fall migration in Southern Yukon.

Perhaps the most important short-term goal for breeding season research is the establishment of study areas for more in-depth ecological research. Breeding studies have been proposed for 2006 in multiple locations in Alaska including Innoko National Wildlife Refuge along the Yukon River (USFWS), the Chugach National Forest's Copper River Delta (USFS), and DoD installations and state game refuges in Anchorage and Fairbanks (Alaska Bird Observatory, DoD, Fish and Game, USFWS). The CWS identified a potential study site near Whitehorse, Yukon Territory. Thus it is likely that at least one significant breeding study will be initiated on the species in 2006 in Alaska. Surveys for extant breeding pairs in northern U.S. are being conducted by William Glanz and Thomas Hodgman (Maine).

Winter Research

Research on the wintering grounds has begun in earnest with studies focused on the Lower Mississippi Valley (LMV) alluvial plain (e.g., Theodore Roosevelt National Wildlife Refuge complex and the Cache and White River NWR). The two major themes of the work are increasing our understanding of the behavioral ecology of the species and use of habitat in the forest/farm mosaic. Claudia Mettke-Hofmann, collaborating with Gerhard Hofmann, Russell Greenberg, and Paul Hamel, has completed a study of novelty responses in Rusty Blackbirds as part of a comparative study of North American blackbirds. The Rusty Blackbird is significantly more neophobic than the other common blackbirds of the area, an attribute that may contribute to its decline in the face of anthropogenic change in habitat.

Jason Luscier is developing survey techniques that will provide statistically robust data on the distribution of species with respect to habitat and the abundance of other potentially competing blackbirds. In a pilot study he surveyed 84 sites at least four times and will be able to analyze the data for seasonal changes in distribution and habitat use. The technique is relatively easy to implement and, therefore, can be used by large numbers of observers to conduct regional atlas projects.

Pilot work on radio-tracking individuals has just been initiated by Claudia and Gerhard Hofmann and Paul Hamel, with some success at tracking individuals. This should prove to be an invaluable tool in determining space use. In addition, over 50 birds have been captured, measured, color banded, and sampled for blood and feathers at the LMV site. One interesting finding is that flocks at different localities have different sex/age class composition, a phenomenon that if found to be general could provide insights into how Rusty Blackbirds assess habitat quality.

Isotope Analysis

The goal of the isotope analysis, spearheaded by Keith Hobson, is to establish the connectivity of breeding and wintering populations. Through analysis of deuterium ratios in museum skins and

free-ranging birds, the latitude of breeding origin can be estimated both historically and under present-day conditions. A comparison of historical and current patterns may provide insights into where declines are occurring on the breeding grounds. Over 190 samples have been obtained from 11 museum collections and more are still coming. In addition, as the above accounts state, samples of 15 and over 50 birds have been obtained from Alaska and the LMV, respectively. We currently have field teams heading to sites in the Carolinas to sample the Atlantic coastal plain winter population (where declines have been particularly severe). Preliminary analysis of museum samples has provided results that verify that the technique will provide good results.

Mercury and Calcium Analysis
In the acidic wetlands of the boreal forest, the impact of acid rain and mercury contamination may be exacerbated. In addition, mercury contamination may be an issue in regions of the southeast where the Rusty Blackbird winters. David Evers has initiated a project sampling both Rusty Blackbirds and other species that share its habitat, to look for evidence of high mercury levels and depletion of calcium (an effect of acid rain). He has run analysis on blood and tissue samples from Alaska, and will be analyzing feathers from historical samples in museum collections. He is particularly interested in obtaining new samples from the scattered populations in northern New England, as well as the coastal plain and piedmont of the Carolinas. A field team is headed to collected samples in the Carolinas later this winter, and material is being taken from birds in the LMV as well.

Outreach
Information about the decline in Rusty Blackbirds is being disseminated to ornithological communities as well as agencies and organizations involved in bird conservation. Short communications have been disseminated on regional and national list-serves (e.g. E-birds) and to the bulletin of the Ornithological Societies of North America. Short articles or letters have been or will be published as well (e.g. Audubon Naturalist Society Newsletter, and the Cornell Lab of Ornithology "Winging It").

A great opportunity for raising awareness comes this spring, when the theme of International Migratory Bird Day will be birds of the boreal forest. The Rusty Blackbird has made it on the t-shirt and poster and information about the species will be included in the organizer information kit as well. It is fair to say that the awareness of the problem has increased greatly in the past year and, working with Partners in Flight and the Boreal Bird Initiative, we will be able to expand upon our efforts greatly.

Financial Strength
DOD Legacy will provide $20 K to support research on the wintering grounds. Support ($8 K) has been obtained for winter field work from the Migratory Bird Division of the Southeast Region of the FWS thanks to the work of Dean Demarest and Claudia Mettke-Hofmann. It appears likely that an additional $35 K will be provided from the National Wildlife Refuge cost-share program. Additional direct or in-kind support has been provided by the USFS, Smithsonian Bird Center, USFWS, Alaska Bird Observatory, Biodiversity Research Institute, Max-Planck-Institute for Ornithology, Arthur-von-Gwinner Foundation, and the USDA Forest Service. A proposal to list the species as one of management concern for the USFWS is in the works and if

this occurs, then the potential for support for research and management of this species will increase in the future.

The following was cut from: FEBRUARY 2008 DRAFT. **Assessing the value of Department of Defense lands in Alaska to a declining species, the Rusty Blackbird.**

Breeding site occupancy.—Within each military site we found Rusty Blackbirds to breed in most areas with appropriate habitat. The majority of sites without nesting birds lacked appropriate breeding habitat for this species. Of particular importance to breeding Rusty Blackbirds was the wetland rich floodplain of the Tanana River in Fort Wainwright where we estimated territorial blackbirds to occur on 91% of 44 surveyed sites. We also estimated territorial blackbirds to occur on 51% of 33 surveyed wetlands in Anchorage. The occupancy rate in Anchorage was lower than on the Tanana Flats, but also quite high especially given that we had predicted that many of the small wetlands in our Anchorage sample would not be used by birds. When we removed from our sample those wetlands that were <7 ha in size (n = 7 survey units), the occupancy rate was 65%. The number of birds we encountered in Anchorage was far more than we expected in this predominately upland landscape where a 4-year avian inventory previously encountered only four Rusty Blackbirds across 554 survey points (Andres et al. 2001). Thus we found no evidence that declines of this species in Alaska (-5% per year from 1980–2005; Sauer et al. 2006) had led to widespread extirpations from suitable breeding sites in our study areas. Similar results were reported from the MacKenzie River Valley, Northwest Territories (Machtans et al. 2007), indicating that the northwestern boreal zone, including Alaska, may be an important stronghold for breeding populations of Rusty Blackbirds (Greenberg et al. *in review*). This is in contrast to southern portion of the species' breeding range in southern Canada and New England where declines have led to local extirpations of the species (Greenberg et al., *in review*).

Nest survival.—We also found strong evidence that Anchorage installations and the Tanana Flats Training Area supported productive breeding populations for Rusty Blackbirds. Breeding Rusty Blackbirds in our study had relatively high rates of nest success with an estimated 72% and 51% of nests fledging young in Anchorage and Tanana Flats, respectively. Egg viability was also high with 89% of eggs hatching. Average clutch size in this study (5.3 eggs) was slightly larger than in southern breeding populations (4.5 eggs; Avery 1995), possibly a reflection of latitudinal increases in fecundity. Our estimates of nest success were similar to those of Rusty Blackbirds breeding in New England in 2006 and 2007 (69% of 35 nests fledged young; L. Powell, unpublished data). Our estimates of nest success were slightly higher than found in 2006 for Rusty Blackbirds nesting in Fairbanks (39% of 12 nests fledged young; Shaw 2006) and on the Copper River Delta (24% of 14 nests fledged young; P. Meyers, unpublished data). Similar to these studies, we found that predation was the principal cause of nesting failures, a pattern consistently found among North American passerines (Martin 1993a). We never observed predators taking young from nests but we commonly saw nesting blackbirds mobbing Northern Harriers (*Circus cyanneus)*, Red-tailed Hawks (*Buteo jamaicensis*), Gray Jays (*Perisoreus canadensis*), and Common Ravens (*Corvus corax*). Such mobbing behavior increased as the nestling period progressed and may have been in response to the seasonal increase in nest predation that we observed.

All of the estimates of Rusty Blackbird nest survival from Alaska and New England in 2006 and

2007 are similar to or higher than published rates of nest success estimated for other North American blackbirds (range 24–53%; Martin 1993*a*). Deficits in nest survival among Rusty Blackbirds do not appear to be strongly associated with the species' widespread decline. However, studies are needed in Canada to rule out whether nesting success is aberrantly low in other important parts of the species' breeding range. Additional years of sampling would also be useful to determine whether 2007 was a year of unusually high nest survival in our study areas. Researchers now need to examine other components of demography (chick growth rates, juvenile and adult survival) to determine the locations and times of the year that population growth in this species is constrained. Adult and first year survival in this species may be ultimately constrained during migration or winter; however, survival may be best examined on the breeding grounds where we predict site fidelity to be higher than on wintering grounds. We base this prediction of the low numbers of birds resighted across winters in Mississippi (C. Mettke-Hofmann, personal communication) and the common observation of old nests near active Rusty Blackbirds nests in our study.

Abundance relative to habitat.—Freshwater was an important predictor of Rusty Blackbird abundance in our study. In Anchorage, the abundance of nests was positively related to freshwater surface area and the area of emergent vegetation wetlands. The close tie to open water has been noted throughout the species breeding range (Kennard 1920, Spindler and Kessel 1980, Whitaker and Montevecchi 1997, Machtans et al. 2007). In Anchorage, these aquatic habitats were not selected as nesting sites but were instead used as feeding sites. We commonly observed birds wading along shorelines, in emergent vegetation, and in seasonally flooded meadows where they fed on large aquatic invertebrates (dragonfly, caddisfly, water beetle). The abundance of these invertebrates has been positively linked to the amount of shallow water area in freshwater ponds in Alaska (Jensen and Walton 2007). Specialized foraging requirements (habitats and prey therein) may therefore ultimately dictate the distribution of Rusty Blackbird during the breeding season. The same may hold true on the wintering grounds where the species commonly feeds along creeks and other wetlands (Avery 1995). Studies are needed to determine whether specialized foraging requirements during breeding or wintering limit how the species can respond to changes in hydrology resulting from climate warming (Riordan et. al 2006), resource developments, or other disturbances or management activities (Savignac 2006).

Selection of habitats for nesting.—Rusty Blackbird appeared to be somewhat flexible in the habitat attributes that they select for nesting as long as they are near water. This flexibility suggests that nesting habitats are not a limiting resource for breeding Rusty Blackbirds (Greenberg et al., *in review*). Birds nested an average of 10 and 58 m from water on the Tanana Flats and Anchorage, respectively. Blackbirds avoided nesting in upland habitats and selected a variety of wetlands types for nesting, with scrub-shrub and forested wetlands selected in Anchorage and emergent vegetation and forested wetlands selected on the Tanana Flats. Birds placed their nests almost exclusively in black spruce in Anchorage (95% of 21 nests) and primarily in willows on the Tanana Flats (78% of 32 nests), with birds selectively nesting in patches with relatively high densities of the apparently preferred regional substrate. This difference appeared to be the result of regional differences in the availability of dense vegetation near water, with black spruce common and willows rare in Anchorage and the reverse true on the Tanana Flats. Selection of black spruce and willows for nest sites appeared to be adaptive as nests placed in grasses, white spruce, paper birch had lower nest survival. It is unknown whether

such selection was adaptive because it placed nests closer to foraging sites, increased the number of suitable sites that predators must search for nests (Martin 1993*b*), or spaced birds away from common upland nest predators like red squirrels (*Tamiascurius hudsonicus*; Willson et al. 2003), which were uncommon in this study.

Diseases and contaminants.— The incidence of influenza A viruses (0% of 17 birds) and blood parasites (33% of 15 birds infected with *Leucocytozoon* sp.) was relatively low among the small number of Rusty Blackbirds tested in Anchorage. The low prevalence of influenza A viruses was not unexpected given than none of 1,927 passerine birds in Alaska tested positive for avian influenza viruses in 2006 (Ip et al., *in review*). The incidence of *Leucocytozoon* infection was lower than the 83% infection rate reported by Greiner et al. (1975; $n = 23$ birds). We recommend wider testing of Rusty Blackbirds for blood parasites and other diseases to help rule out whether poor health may be contributing to the widespread decline of this species.
Blood mercury levels in adult Rusty Blackbirds (0.23 ug/g ww) were far below concentrations that lead to decreased hatchability of eggs (1.18 ug/g, ww; D. Evers, personal communication) and much lower than blood mercury concentration found in Rusty Blackbirds nesting in Maine (D. Evers and L. Powell, personal communication). However, blood mercury levels of birds both in Anchorage and Bethel, Alaska ($x = 0.15 \pm 0.04$ ug/g, ww; D. Evers, unpublished data) were slightly above levels found in wintering Rusty Blackbird (D. Evers, R. Greenberg, and C. Mettke-Hofmann; personal communication). This suggests that breeding birds may be more prone to mercury exposure than wintering birds; possibly due to a more strict summer diet of high trophic aquatic insects which are believed to bio-accumulate methylmercury (Evers et al. 2005). Our limited sample suggested that the incidence of *Leucocytozoon* infection was unrelated to mercury blood levels; however, further sampling would be useful to verify this. We recommend further monitoring of mercury in breeding Rusty Blackbirds because the species appears prone to mercury exposure and because atmospheric deposition of mercury in northern North America is increasing due to rapid increases in mercury emissions from China (Zhang et al. 2002).

DIGITAL CAMERA MONITORING TO DETERMINE NEST FATE OF RUSTY BLACKBIRDS IN FAIRBANKS, ALASKA

Nora Rojek[1]*, Ted Swem[1], and Nancy DeWitt[2]

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Rusty blackbird breeding ecology studies have been conducted in various parts of Alaska in recent years. Nest failures have been primarily attributed to predation, but in most cases the species of predator was not identified. In 2008, we found and monitored ten nests in the Fairbanks area. Eight were monitored with time lapse digital cameras with images recorded every 10 seconds. Two nests failed. One failure occurred close to expected hatch date; camera images revealed the cause of failure as depredation by a common raven. The other nest, which was not monitored with a camera, failed during incubation. Eggshells were present on and below the nest, which was pulled down and flattened, and mammal hairs were found in the branches along the flattened side. Evaluation of the hair by University of Alaska Museum of the

North narrowed down the likely predator to house cat, domestic dog, red fox, or less likely marten, coyote, lynx or wolf. Camera images revealed a domestic cat near another nest, but the nest was not depredated. Cameras recorded other interesting behaviors, including chick fledging.

DAY 2 - Thursday, 11 December, 2008

FORMATION OF ALASKA RAPTOR GROUP
Carol McIntyre – NPS and John Shook –ABR
I do not have notes for this.

NEW METHODS FOR DESIGNING RAPTOR SURVEYS AND MONITORING PROGRAMS
Bill Thompson – NPS, and Travis Booms – UAF
I do not have notes for this.

SHORT EARED OWL CONSERVATION ISSUES & PROPOSED ACTIONS
Steve Matsuoka – USFWS
I do not have notes for this.

INCREASING RAPTOR POPULATIONS & IMPLICATIONS FOR PREY POPULATIONS
Michelle Kissling – USFWS

Michelle discussed possible changes in Predator-Prey interactions as raptor populations continue to recover. She provided an example of how BAEA can directly impact prey while also indirectly impacting other species. This is an interesting thought and we should keep an eye out for other raptors including PEFA.

RUSTY BLACKBIRD BREAK-OUT
ATTENDEES

Melanie Flamme: USFWS. Gates of Arctic NWR.
Chris Harwood: USFWS. Kanuti NWR.
Melissa Cady: USFS. Wrangell Ranger District, Tongass National Forest
Amal Ajmi: DoD. Fort Wainwright (Tanana Flats & Yukon Training Areas)
Sue Sharbaugh: Alaska Bird Observatory
Maureen de Zeeuw: ADF&G Field Office
Steve Matsuoka: USFWS
Bud Johnson: USFWS. Tetlin NWR
Marty Bray: USFS. Chugach National Forest
Nora Rojek: USFWS. Field Office
David Shaw: Alaska Bird Observatory
Peter Keller: USFWS. Tetlin NWR
Cole Brown: ADF&G. Nongame
Aaron Cooper: USFS in Cordova
Dave Tessler: ADF&G. Nongame
Hank Timm: USFWS. Tetlin NWR

John Shook: Alaska Biological Research
Travis Boone: ADF&G. Nongame

Dave Tessler mediated the meeting. Dave is very interested in water quality, (plustrial and fluvial) and insect identification, as well as potential prey items versus actual prey being consumed. Further, what are the potential energy contents (bomb-calometry) for said prey? Dave is interested in who is doing what, so we can pool our resources, learn from others mistakes and triumphs. Is anyone conducting Hg assay monitoring next year?

Steve M. discussed capture success briefly. He had better success with females and used mob calls, and or chick distress calls and magpie displays with nets. RUBL appear to have very loose territories, maybe ½ mile from nest. He also suggests that RUBL have communal foraging sites, where there are large prey sources (this might be a good source to sample for inverts). We should also sample in places RUBL aren't foraging to see why they might not be feeding there.

MAJOR POINTS:

- Use of camera documentation for: provisioning rates, types of prey, nesting success.
- Replication of studies in different areas of the state. Look for variability with-in the state.
- Think about demographics like returns, fledging success, adult survival, parent fidelity, etc…
- Spread out the methodologies among projects. So many of us have projects, let's see which works out best
- Dave Shaw talked about examining museum specimens for stomach contents. He also talked about the possibility of collecting here in Alaska
- Talk brought up the idea of coupling RUBL banding with duck banding, since RUBL get trapped in the grain traps quite a bit
- Insect populations might be effected by wetland drying, there are some biologists at UAA working on this topic
- Aaron was able to identify prey items brought to the nest using her game cameras

Dave suggests a phone conference next week.
Points for conference meeting:
Study sites and questions.
Who will take the lead on specific questions?
Do we want a phased approach to some of the projects priorities?.

ALASKA BREEDING BIRD ATLAS COMPILATION - ALASKA AVIAN DATA CENTER (AKN NODE) FORMATION BREAK-OUT

- Save and collect data. Utility to develop AK bird Atlas.
- We need to work out a system to enter and send all the data, maybe fed through AKNHP as they have the agreement with ADF&G. This is a phased approach to data management and archival. First stage is in operation now.
- There is a steering committee, but not fully developed.
- Use not only current data, but digitize and archive old data.

- Tracey talked about initiating a pilot study. Upload some data into the program, and present results to the agencies so they can see how important and useful this can be for monitoring and management planning.
- AK Atlas: real need to have atlas for accurate information on ranges. We have a lot of info statewide, but it is not compiled anywhere. We need to compile this so everyone can use this distribution information. Do something with seasonal components, Ex. Birds of the Yukon by Pam Sinclair.
- Maybe we should contact Cornell about AKN. Discuss design, purpose and the outputs from this type of database.

Currently, do not know which is driving the other AKN or AK Atlas. AKAKN: is meant to be a repository for all data. The data is meant for as of yet unknown projects that will require historic information. Developing projects will be able to tap into this source of information to design and develop methodology and hypothesis. The AK Atlas: is in small part a little segment of this vast data storage in AKN. The AK Atlas will use data to determine breeding range and distributions.

APPENDIX II: MEETING AGENDA

Boreal Partners in Flight Annual Meeting

WHEN: Wednesday and Thursday, December 10-11, 2008

LOCATION: The U.S. Geological Survey, Alaska Science Center, Glenn Olds Hall (the shiny new building off the road behind the two more visible USGS buildings), 4210 University Drive, Anchorage, Alaska, Entry Floor Conference Room

PARKING: Visitors will NOT need a parking permit for the meetings. APU Security has been notified that we are having a large meeting and they will not be ticketing visitors. We have been requested to park in the lot across University Drive next to Carr-Gottstein.

DAY 1 - Wednesday, 10 December, 2008

8:30-8:50	David Tessler – ADF&G Amal Ajmi –USARMY	Introductions and Welcome; Housekeeping

UPDATES

8:50-9:10	Taldi Walter – Alaska Audobon	Update on Activities & Initiatives for Audubon Alaska
9:10-9:30	BCR Coordinators	BCR Updates
9:30-9:50	Susan Sharbaugh – ABO	All-bird Conservation Plan for BCR4
9:50-10:00	Susan Sharbaugh – ABO	Update of ABO education programs
10:00-10:20	BPIF Business PART I	Election of new officers - a new co-chair, and any new executive committee members or BCR coordinators
10:20-10:30	Break	

CONSERVATION, INVENTORY, and MONITORING

10:30-10:50	David Evers – Biodiversity Research Institute (BRI)	2008 Mercury Levels in Alaska Birds
10:50-11:10	Steve Matsuoka – USFWS	BBS in Alaska: Brief update
11:10-11:20	Chris Harwood – USFWS	Yellow-bellied Flycatchers in Kanuti Canyon: How long have THEY been there?!
11:20-11:40	Colleen Handel – USGS	Alaska Landbird Monitoring Survey (ALMS). C. Handel and M. Cady
11:40-12:10	All	ALMS: Individual Updates and Discussion
12:10-12:30	Steve Matsuoka – USFWS	ALMS funding update, scientific review and program strategy
12:30-1:40	Lunch	

CONSERVATION, INVENTORY, and MONITORING - Continued

1:40-2:00	David Shaw – ABO	Eielson AFB BASH Monitoring
2:00-2:20	David Tessler – ADF&G	Presentation on Development of: 1) New Avian Knowledge Network Node; 2) Breeding Bird Atlas for Alaska
2:20-2:40	Tracey Gotthardt – ANHP	Presentation on Alaska GAP
2:40-3:00	BPIF Business PART II	BCR Priority Projects: We would like to identify 1-2 tangible things that we'd like to accomplish in each BCR in 2009-2010; discussions should include potential sources of funding and who will do the work. Target projects could be focused on addressing information needs and/or conservation of species of concern.
3:00-3:20	Break	

SPECIES OF CONCERN

3:20-3:40	Nora Rojek – USFWS	Presentation on the OSFL Assessment
3:40-4:00	Steve Matsuoka – USFWS David Shaw – ABO And Luke Powell – U. of Maine	Breeding Ecology of Rusty Blackbirds in Alaska and New England – Project Update
4:00-4:10	Steve Matsuoka or Dave Tessler	Rusty Blackbirds: Updates on International Working Group plans and progress, as well as recent work on AK military lands
4:10-4:30	Nora Rojek – USFWS	Some Determinants in Nesting Failure in the Rusty Blackbird
4:30-4:40	BPIF Business PART III	A final discussion on updating the BPIF Plan (Do we go there? If so, who and when?).
4:40-5:00	BPIF Business PART IV	BPIF web site: does it need to be updated and if so, who will do it?

DAY 2 - Thursday, 11 December, 2008

ALASKA RAPTOR GROUP

8:30-9:10	Carol McIntyre – NPS and John Shook –ABR	Formation of Alaska Raptor Group
9:10-10:00	Bill Thompson – NPS, Travis Booms – UAF	New methods for designing raptor surveys and monitoring programs
10:00-10:20	Break	
10:20-11:00	Travis Booms – UAF, Jim Johnson and Steve Matsuoka – USFWS	Short Eared Owl Conservation Issues & Proposed Actions

ALASKA RAPTOR GROUP - Continued

11:00-11:40	Michelle Kissling and Steve Matsuoka – USFWS	Increasing Raptor Populations & Implications for Prey Populations
11:40-12:00	All	Wrap up discussions
12:00-12:10		Wrap up BPIF
12:10-1:30	Lunch	

Breakouts

1:30-2:45	Interested Parties	Rusty Blackbird Break-out
3:00-4:15	Interested Parties	Alaska Breeding Bird Atlas compilation - Alaska Avian Data Center (AKN Node) formation.